



IB MYP YEAR 1
YEAR 6 ATYP Mathematics
Assessment #3
BROCHURE



Name: _____

6 - _____

Teacher: **Ms. Yeung & Mr. Slosberg**

Due Date of task: **April 10, 2014**

Time allowed: **1 month**

UNIT QUESTION:

How can visual learners understand data?

CONCEPT STATEMENT:

Statistical tables and graphs are mathematical conclusions made visible.

READING MATERIALS:

- ◆ Mathematics Matters 1, Chapter 11, "Data Handling."
- ◆ Mathematics Matters 2, Chapter 8, "Data Analysis."

INSTRUCTIONS:

- ◆ Read the instructions for each stage carefully.
- ◆ Show all work, steps and proper units.
- ◆ Calculators are allowed.
- ◆ All work MUST be done in school.
- ◆ Allowed to use non-electronic dictionary.
- ◆ All work must be individually done. If any work is plagiarized, the assessment task will automatically receive a 0 and the assessment must be done again.

TASK:

Create a brochure advertising the benefits of four types of statistical tables & graphs.

- ☐ tally chart, frequency table, cumulative frequency table, or stem and leaf plot
- ☐ pictogram, bar chart, compound bar chart, segment bar chart, histogram, or box-and-whisker plot
- ☐ scatter plot, broken line graph, or trend line w/ extrapolation
- ☐ pie chart

Criterion C

In this task, you will have to create a brochure advertising the benefits of statistical graphs.

1. Think of a questions you want to research on.
2. Get first-hand information form your classmates. (i.e. to ask or to measure them)
3. Decide which type of graph would be the best to representation.
(Hint: Your choice of the graphs depend on what type of data you have collected)
4. Organize your data. (according to the graph's needs)
5. Presenting your data.

Do make sure you stated clearly how the table(s) and graph(s) are constructed.

Criterion D

- ◆ How useful are your charts in real life?
- ◆ How accurate is the message you have presented through your graph?
(Ask the same question to a different class after your brochure is finished to find out.)
- ◆ State tips or hints for the students next year on how the graphs could be constructed in a better way.

CRITERION C: COMMUNICATION IN MATHEMATICS

Forms of representation for this assessment include **paragraphs** or bullet points of explanation, statistical **tables**--tally chart, frequency table, cumulative frequency table, stem and leaf plot--, and statistical **graphs**--pictogram, bar chart, compound bar chart, segment bar chart, histogram, box and whisker plot, scatter plot, broken line graph, trend line, and pie chart.

Achievement level	Task Specific Rubric	IBO Published Descriptor	Student's Self-Evaluation
0	The student does not reach a standard described by any of the descriptors given below.	The student does not reach a standard described by any of the descriptors given below.	
1–2	The brochure is generally untidy . While graphs may be correct, it is difficult to follow how they were constructed.	The student shows basic use of mathematical language and/or forms of mathematical representation. The lines of reasoning are difficult to follow .	
3–4	It is clear from the brochure how to construct sufficient statistical tables or graphs. Data is moved from one form to another with some success . Each graph has a clear title.	The student shows sufficient use of mathematical language and forms of mathematical representation. The lines of reasoning are clear though not always logical or complete . The student moves between different forms of representation with some success .	Teacher's Final Grade
5–6	It is clear how to construct statistical tables or graphs. Instructions are logical and concise . Data is moved effectively between good statistical tables or graphs according to the students' instructions. Each graph has a clear title, is logical with the independent variable on the x-axis, and is complete with axes labeled including units.	The student shows good use of mathematical language and forms of mathematical representation. The lines of reasoning are concise , logical and complete . The student moves effectively between different forms of representation.	
			(0-6)

CRITERION D: REFLECTIONS & EVALUATIONS

Achievement level	Task Specific Rubric	IBO Published Descriptor	Student's self-evaluation
0	The student does not reach a standard described by any of the descriptors given below.	The student does not reach a standard described by any of the descriptors given below.	
1–2 Real Life	The question chosen has some relation to real life.	The student attempts to explain whether his or her results make sense in the context of the problem. The student attempts to describe the importance of his or her findings in connection to real life.	
3–4 Degree of Accuracy	Conclusions, important to real life, are drawn from the data graphed. The student talks about how accurate they think their conclusions are (how valid would they be if another class were asked the same question?).	The student correctly but briefly explains whether his or her results make sense in the context of the problem. The student describes the importance of his or her findings in connection to real life where appropriate. The student attempts to justify the degree of accuracy of his or her results where appropriate.	Teacher's Final Grade
5–6 Improvements	The student highlights problems with the accuracy of their conclusions . The student explains why their conclusions are important in real life . The student correctly discusses the limitations of the accuracy of their data . The student suggests better ways to display the data including different graphs or different data collection methods.	The student critically explains whether his or her results make sense in the context of the problem. The student provides a detailed explanation of the importance of his or her findings in connection to real life. The student justifies the degree of accuracy of his or her results where appropriate. The student suggests improvements to his or her method where appropriate.	
			(0-6)

Grader's Name: _____

Grader's Class: _____

Grading Sheet for _____'s Brochure
Class: _____

	Overall Grade	Tally/ Frequency Chart	(Compound) Bar Chart	Pie Chart	Line Graph	Scatter Plot
Appearance						
Completeness						
Directions						

Criterion C Student Self or Peer Assessment

Appearance	1	2	3	4	5	
	worn	plain	neat	colorful	beautiful	
	messy	normal	no color	creative	excels	
Completeness	1 point each for	title, label topics, label numbers, data				
Directions	1	2	3	4	5	6
	doesn't have	too simple	accurate	precise	clear	beautifully written
	not at all	unclear	makes sense	complete sentences	easy to understand	very clear